

PATENT

Application No.: 10/078,622

Paper Dated: May 17, 2005

Attorney Docket No.: 126381.00901

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application.

1. (previously presented) An implant for delivery of a drug, comprising:
an implant body capable of being heated by exposure to an electromagnetic field having a frequency below about 1 MHz; and
a drug material in contact with the implant body, said drug material being substantially effective when the implant is heated by exposure to the electromagnetic field and heat energy from the implant heats the drug material.
2. (previously presented) The implant as recited in claim 1, wherein the drug material is a drug ingredient combined with a heat sensitive release material, and wherein the drug material becomes effective after the release material releases a portion of the drug ingredient.
3. (previously presented) The implant as recited in claim 1, wherein the drug material comprises a drug ingredient adhered to the implant and is substantially inactive at normal body temperature and becomes active after the implant heats the drug ingredient to a temperature where the drug ingredient is substantially active.
4. (previously presented) The implant as recited in claim 1, wherein the drug material is a drug ingredient that is to be delivered to a tissue adjacent the implant, and wherein drug-tissue interaction is enhanced when heat from the implant causes the tissue adjacent the implant to rise above normal body temperature.
5. (previously presented) The implant as recited in claim 1, wherein the implant is a stent, and the drug material comprises an active ingredient that inhibits restenosis in the stent.

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6. (previously presented) A method of using a drug-coated or drug-loaded implant by heating the implant above a certain temperature at which drug activity becomes substantially effective in a tissue adjacent the implant, and maintaining that temperature for a specified period of time, wherein the implant is heated by exposure to an electromagnetic field having a frequency below about 1 MHz.

7. (previously presented) The method as recited in claim 6, wherein the implant is heated by radio frequency (RF) energy.

8. (previously presented) The method as recited in claim 7, wherein the RF energy is generated by a sending antenna that is outside of a patient's body and that transfers energy to the implant.

9. (canceled)

10. (previously presented) The method as recited in claim 6, wherein the drug activity inhibits proliferation of cells that cause restenosis.

11. (currently amended) A drug eluting implant, comprising:
an implant body capable of being heated by exposure to an electromagnetic field having a frequency below about 1 MHz; and
a drug material applied to the implant body,
wherein said drug material becomes substantially ~~ineffective~~ effective after the implant is heated by exposure to the electromagnetic field and heat energy from the implant heats the drug material.

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12. (currently amended) The implant as recited in claim 11, wherein the drug material is a drug ingredient combined with a heat sensitive release material, and wherein the drug material becomes ~~ineffective~~ effective after the release material is heated.

13. (previously presented) A metallic implant for delivery of a drug, comprising:

an implant body capable of being heated; and

a drug material applied to the implant body,

wherein said drug material is capable of being active while the implant is heated by exposure to an electromagnetic field having a frequency below about 1 MHz.

14. (previously presented) A method of using a drug-coated or drug-loaded implant by heating the implant above a certain temperature at which drug activity in a tissue adjacent the implant is substantially enhanced, and maintaining that temperature for a specified period of time, wherein the implant is heated by exposure to an electromagnetic field having a frequency below about 1 MHz.

15. (previously presented) An apparatus for delivery of a drug to a patient's body, comprising an implantable member and a drug, the member being implantable in a patient's body and controllably heated to elute the drug from the implantable member to treat the body, wherein the drug is operative when the implantable member is heated by exposure to an electromagnetic field having a frequency below about 1 MHz.

16. (previously presented) The apparatus as recited in claim 15, wherein the heating of the implantable member is non-invasive, and wherein the heating is accomplished by applying an electromagnetic field over the patient's body.

17. (previously presented) The apparatus as recited in claim 16, wherein the drug is for treating prostate disease.

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18. (previously presented) The apparatus as recited in claim 16, wherein the drug is utilized for treating diabetic disease.

19. (previously presented) The apparatus as recited in claim 16, wherein the drug is utilized for treating ophthalmic disease.

20. (previously presented) A method of delivering a drug to a body comprising:

inserting an implantable member comprising a drug to a patient's body; and
controllably heating the implantable member by exposure to an electromagnetic field having a frequency below about 1 MHz, wherein the drug is eluted from the member to treat the patient's body, wherein the drug is operative when the implantable member is heated.

21. (previously presented) An implantable device comprising at least one drug material, wherein the implantable device is capable of being heated inductively and delivering the drug material to a patient's body when heated by exposure to an electromagnetic field to a patient's body, and wherein the electromagnetic field has a frequency below about 1 MHz.

22. (previously presented) The implantable device as recited in claim 21, wherein the implantable device is heated inductively with RF energy.

23. (previously presented) The implantable device as recited in claim 21, wherein the implantable device is a prosthetic device.

24. (previously presented) The method as recited in claim 6, wherein the implant is heated to a temperature of at least about 40°C.